Volunteer Firemen

OCTOBER

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NATIONAL FIRE PROTECTION ASSOCIATION
INTERNATIONAL
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Volunteer Firemen

Volume 8 **Number 10**

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THE cover picture this month (*Acme*) shows a fire which destroyed nine business buildings in Middletown, Connecticut, on August 29, with a loss of more than $250,000. The fire started in the kitchen of a tavern and was fought by employees for an estimated 25 minutes before the first alarm was telephoned to the fire department. When the apparatus arrived, flames were shooting above the roof. Help was called from the South District Association of Middletown and from Portland, Westfield, Meriden, Hartford, Cromwell, Durham and Clinton. The fire departments of East Hampton and Haddam sent apparatus to cover vacated stations. Last year N.F.P.A. engineers pointed out that this busy industrial city needed more paid firemen to assure adequate protection. When the alarm was received for this fire only six paid men were on duty to man three pumpers and an aerial ladder. The buildings destroyed by the blaze were mostly old structures without cut-offs, fire walls or shutters to limit the spread of fire. None of the buildings were sprinklered.

WHAT is an auxiliary fireman and what are his duties? What are the duties of air raid wardens and how do they help in emergency fire protection? There has been considerable confusion regarding the respective duties of an auxiliary fireman and an air raid warden. Both have responsibilities in connection with fire defense but they are different jobs.

Auxiliary firemen are enrolled to assist the regular fire department of the community in order to provide full manning of all fire apparatus under emergency conditions, provide relief periods for regular firemen and serve as replacements for casualties that may occur among fire fighters during air raids or other emergencies. Auxiliary firemen in general serve under the local fire chief and are instructed in the use of both regular and auxiliary equipment by fire department officers.

Air raid wardens on the other hand are largely neighborhood workers. Although they are trained to handle incendiary bombs and incipient fires, they are primarily police auxiliaries empowered to enforce blackout regulations, prevent panic, and direct persons to shelters during raids. They also must see that all fires are promptly reported to the fire department.

CONSIDERABLE talk is heard these days about volunteer fire departments being short-handed because so many members are serving with the army or are working in defense industries. Although many paid fire departments are being supplemented by recruitment and training of volunteer auxiliaries, there is some question as to just how auxiliary firemen are going to fit into existing volunteer fire company organizations. If existing volunteer fire companies become noticeably shorthanded, completely new companies of auxiliary firemen may be organized by those responsible for the defense of the community. Obviously the setting up of more-or-less competing forces of auxiliary firemen may draw local support and interest away from old-line volunteer fire companies. Thus it is to the best interests of the fire department to keep up its membership rolls by making replacements for men now serving in other defense capacities and not available for fires.

In almost every community there are men who would make good firemen if given a chance to join the fire company. The enrollment of extra fire company members should not affect the status of loyal members who are not at present available for fire fighting. If it is felt that the addition of new members needed for the emergency will make the membership too large when the absentees have returned home, there are several ways in which this situation could be handled. Many fire departments have no ladder company or crew. This is a most important fire protection unit even in small departments where no separate ladder truck is available. Likewise salvage or rescue squads, fire-police, or other special duty groups might be added as valuable aids in fire department operations. Such groups could be organized within the department with the present experienced firemen serving as officers and instructors. New fire company units may be needed also to man any emergency apparatus provided for fire defense. Some fire departments have reserve apparatus that might be manned and put in readiness for defense service.

Why not check up and see how many men are available for fire company membership in your community?

A NEWSPAPER story date-lined Haverhill, Mass., states that several boxboard mills have been forced to shut down due to a lack of waste paper needed to manufacture this product. The same item adds that there is probably about $25,000 worth of waste paper accumulated in the cellars of Haverhill alone. If this estimate is correct, this is an opportunity to convert waste paper into cash and get rid of a sizeable fire hazard at a profit. Probably not every community can get cash for its waste paper, but almost any fireman will admit that cellars should be cleaned up anyway.

LAST month five departments with fifty men joined the Volunteer Firemen's Section for the first time. Twenty-seven departments with 575 men renewed membership. This makes a total enrollment of 728 departments and 14,883 men. The following departments are newly enrolled:

Markle Fire Department, Markle, Indiana.

Jessup Volunteer Fire Department, Jessup, Maryland.

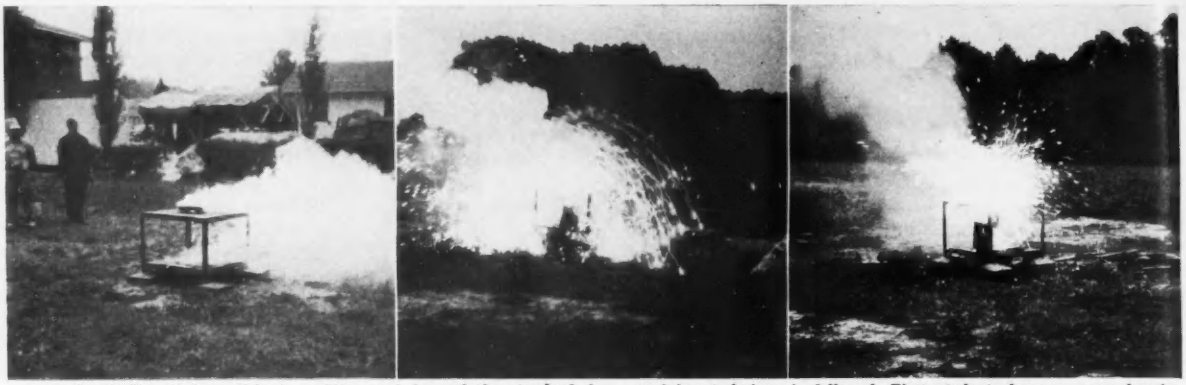
Morris Farms Fire Department, Niles, Michigan.

Newport Fire Department, Newport, Oregon.

Fort Lewis Fire Department, Fort Lewis, Washington.

THE estimated U. S. fire loss for August, 1941, according to the National Board of Fire Underwriters is $24,122,000. This figure is based on notices of incurred loss received by company members of the Board, plus an allowance for unreported and uninsured losses. Losses for the first eight months of 1941 are $658,620 more than the losses for the same months last year. The following table shows the losses for the first eight months of both 1940 and 1941.

	1940	1941
January	$36,260,650	$26,470,000
February	34,410,250	26,102,000
March	29,788,800	31,471,000
April	26,657,190	29,330,000
May	23,446,590	25,637,000
June	19,506,000	24,943,000
July	20,322,800	23,698,000
August	20,722,100	24,122,000
Total 8 months	$211,114,380	$211,773,000



At the Civilian Defense Schools at Edgewood Arsenal the standard Army training technique is followed. First students have a comprehensive explanation of incendiaries, which is followed by actual demonstrations, three of which are shown above. Finally the student is given a chance to apply what he has learned in practical exercises. Left above, white phosphorus burning in a metal container—a relatively poor incendiary. Center, a magnesium bomb burning on wet boards, showing how the water tends to make burning magnesium scatter. Right, a ten pound thermit unit. Action of this unit lasts only a minute, but burns through a half inch steel plate.

THE ARMY'S CIVILIAN DEFENSE SCHOOLS

Chemical Warfare School at Edgewood Arsenal, Maryland, Providing Two-Week Schools for Firemen and Policemen Covering War Gases, Incendiaries and Explosive Bombs

FIVE schools, each covering a two week period, have so far been provided by the U. S. Army as its part in preparing citizens for civilian defense. Since June 30, when the first of these school sessions started at Edgewood Arsenal, Maryland, 153 fire department officers and men as well as 79 others, mostly police officials, have completed the prescribed course covering protection against war gases, incendiaries and explosive bombs.

Army corps area commanders have invited municipalities to designate selected fire and police personnel to attend the schools. In groups of approximately 50 men each the work of training these men will probably go on as long as necessary to develop an adequate force of men trained in emergency fire fighting and other air raid protection. The men receiving the instruction at the school are expected to take back to their communities the technical knowledge and practical experience the school provides and pass it along to the other men in the fire and police services.

The Civilian Defense Schools are sponsored by the Chemical Warfare Service of the U. S. Army, and are operated by that branch's Chemical Warfare School, located at Edgewood Arsenal. Brigadier General Ray L. Avery is Commandant. Lieutenant Colonels Joseph D. Coughlan, Assistant Commandant, and George J. B. Fisher, Executive, handle much of the direction of the Civilian Defense Schools. A large number of the officers of the technical staff of the school and specialists from medical, ordnance, air corps and other branches of the service participate in the instruction work of the school. Officers who have been handling substantial parts of the instruction program include Lieutenant Colonel W. S. Wadelton, Majors Lewis M. McBride, Harold R. Brayton, Willard A. Johnston and Captain Vernon E. McGuckin. Major Brayton is well known to the fire service as he was formerly director of the Texas Firemen's Training School, the annual short course held at the A. & M. College of Texas.

At each school it has been the pleasant custom of the Army to invite certain civilians, distinguished in the fire field, to handle one or more of the lectures. The list to date has included Mayor Fiorello H. LaGuardia, Director, U. S. Office of Civilian Defense, District Officer Daniel D. Ivall, London Fire Brigade, Battalion Chiefs Frederic J. G. Wedemeyer and Daniel A. Deasy, New York Fire Department, Percy Bugbee, General Manager, and Horatio Bond, Chief Engineer, National Fire Protection Association, Fred Shepperd, Case-Shepperd-Mann Corporation, Arthur Guise, Chemical Engineer, Factory Mutual Laboratories, Harry K. Rogers, Chief Instructor, Fire Prevention Department, Western Actuarial Bureau, Chief J. W. Just, Director, Fire Service Extension, University of Maryland, and E. P. Coffey, Chief of Technical Laboratory, Federal Bureau of Investigation.

CIVILIAN DEFENSE SCHOOLS

Attendance by States to September 19, 1941

New York	42
New Jersey	30
Pennsylvania	28
Massachusetts	20
Maine	15
Virginia	15
Connecticut	13
District of Columbia	12
Rhode Island	10
Maryland	9
Florida	6
Texas	5
Alabama	3
Delaware	3
Louisiana	3
Vermont	3
Washington	3
California	2
Georgia	2
Michigan	2
Ohio	2
Kentucky	1
New Hampshire	1
South Carolina	1
Philippine Islands	1
Total	232

The work at the school is strenuous. There are a total of 18 class sessions. Work starts Monday morning and terminates on the second succeeding Saturday afternoon. Daily sessions are from 8:00 to 5:00 and there are numerous night exercises so students have little or no opportunity for outside activities while attending. The men are barracked in dormitories of the Chemical Warfare School and eat at the student officers' mess. The students have to bear their own personal expenses which are estimated to amount to approximately $25.00 per person for the duration of the school.

Major General William N. Porter, Chief of the Chemical Warfare Service, announced the scope of instruction at the Civilian Defense Schools to cover the technique of defense against war gases, incendiaries and explosive bombs. Coordination between military and civilian defense is emphasized as well as

the functioning of national and local defense agencies concerned with the protection of cities and industrial facilities against hostile air attack.

It is pointed out that in today's war, more casualties are suffered by civilians than by the armed forces. That deaths among noncombatants are not even higher is due to the effectiveness of measures of passive defense that have now been put into effect in most European cities.

To insure that passive defense measures adopted by American cities shall represent the most advanced scientific thought is the purpose of the Army's current civilian defense school program. The instruction is therefore directed to the training of municipal officials who in turn may be responsible for the instruction of local auxiliary defense units.

As an accompanying tabulation shows, preference has been given to cities in states in the north and east and along the seaboard in the selection of those invited to take part in the early courses in this series. This is on the assumption that these parts of the country are most likely to be the first subjected to any hostile air attack.

In the conduct of these courses, the standard Army training technique is followed. Procedures are first explained, then demonstrated. Finally the student applies what he has learned in practical exercises. Students not only see incendiary bombs, but handle them and put them out. They not only see gas masks, but wear them under closely simulated wartime conditions. A typical list of the topics of instruction at one of the schools is given in an accompanying tabulation.

The characteristics of war gases as well as equipment designed to neutralize their effects are studied. Students actually enter areas with mustard gas, for example, and learn to decontaminate roads and structures gassed with persistent agents. They cover standard methods of instruction in identifying and protecting against war gases so that on graduation they may be prepared to plan and conduct local schools in gas defense.

The theory of incendiary bombing is taught. All types of incendiaries are actually detonated and extinguished by student groups. Much attention is given to the magnesium bomb which has accounted for so much destruction in Europe. This part of the course has been made realistic by night exercises where night air attacks are simulated.

Explosive bombs are discussed and their effects on personnel and structures are demonstrated as a basis of planning in defense against these particular munitions. Methods of destroying and removing dud and delayed-action bombs are indicated. In this phase of instruction the Army Ordnance Department is cooperating.

TYPICAL LIST OF SUBJECTS COVERED IN CIVILIAN DEFENSE SCHOOLS

Chemical Warfare School, Edgewood Arsenal, Maryland

Military Defense and Civilian Defense
Physical and Chemical Characteristics of War Gases
Persistent and Non-Persistent Gases
National and Regional Civilian Defense Organizations
Chemical Cloud Travel
Identification of Chemical Agents
Service Mask and Canister
Issue and Fitting of Gas Masks
Service Mask Control
Gas Chamber
Non-Combatant Masks
Care, Storage and Disinfection of Gas Masks
Visit to Gas Mask Factory
Inspection and Repair of Gas Masks
Protective Clothing
Physiological Effects and First Aid
Sensitivity Test
Protection of Supplies and Equipment
Decontamination Operations
Gas Reconnaissance
Aerial Attack
Explosive Munitions
Protective Construction
Incendiary Materials
Electrical Firing
Destruction of Duds
Bomb-proof Shelters
Handling Incendiaries
Municipal Fire Defense
Fire Defense Appliances
Organization and Duties of Rescue Parties
Air Raid Wardens
Chemical Agents in Civil Disturbances
Training Methods
Organization and Conduct of Local Schools
Cooperating Area Training

New Mexico Makes Fire Department Inventory

THE New Mexico State Council of National Defense has compiled a fire department inventory which was made for the council through the cooperation of the New Mexico State Firemen's Association. This inventory covers the physical equipment and man power of the sixty-four fire departments and fire brigades in the state. Based upon the inventory, a chart has been prepared listing each fire department in alphabetical order and indicating the equipment available. The inventory shows that New Mexico depends very largely upon volunteer firemen to man its fire defense. Only eight departments had any full-paid firemen, with a total of less than 100 paid firemen in the entire state.

Forty-eight fire departments own a total of 68 pumpers including two combined pumper-ladder trucks. There is also one aerial ladder. Most of the pumpers are of 500-gallon size but 19 are of larger capacities and 13 are of sizes below that standard. There are also 23 hose trucks. Sixty-one pieces of apparatus carry booster tanks and there are 38 chemical tanks. Twenty-six of the booster tanks are unusually large, holding 200 gallons or more.

Only nine departments reported nonstandard threads for 2½-inch hose, but the 39 departments having 1½-inch hose are about equally divided between use of the national fire department standard and the so-called iron pipe thread.

Report On Defense Training For Kentucky Firemen

Mr. G. H. Parker, State Director of Fire Defense, reports that 411 men registered at the drill tower during the Fire Defense School held at Lexington in July. Of those attending 284 were firemen from 98 cities and towns, 52 were officers and firemen from various military and other government posts, and others were representatives of industrial fire brigades, the State Fire Marshal's office and other groups. Chief C. J. Henry and Drillmaster J. E. Berryman of the Lexington Fire Department conducted the fire department evolutions. A number of army officers also gave valuable instruction.

The report of the school shows that 99 small fire departments in the State were not represented. These departments will be instructed by six field drillmasters to be paid jointly by the State and Federal Governments. Plans are also underway to have the University of Kentucky conduct a firemen's extension course, with an annual fire school at Lexington each summer.

Starting this month, the State Civil Defense Commission, through the State Fire Marshal, will conduct schools for watchmen and guards in ten Kentucky cities. These schools will teach prevention of sabotage, protection during a gas attack, decontamination, and the handling of incendiary bombs. Firemen from nearby towns are invited to attend the classes.

Keeping Loss Figures Straight

By Warren Y. Kimball
N.F.P.A. Department of Fire Record

THE fire department of every community is faced with the problem of arriving at a fair evaluation of the damage caused by any fire, large or small. The following suggested procedure for the fire department to follow in determining fire losses may be of some help.

The first step in getting fire loss records for the fire department is an on-the-spot size-up of the loss by the officer in charge of the fire. This requires making note of the approximate extent of the damage; whether the condition and maintenance of the building is poor, fair or good; and also an estimate as to whether the property is old, obsolete, reasonably up-to-date, or strictly modern.

The loss data reported by the officer in charge at a building fire should include the address and name of the owner of the building, the assessed valuation, a preliminary estimate of damage made at the time of the fire, the insurance carried, insurance paid (to be recorded as soon as possible), and the estimated amount of loss not covered by insurance.

In the report there should also be listed each occupant of the building showing what part of the building each occupies. The data on the occupants should include an estimate of their loss made at the time of the fire, the amount of insurance carried, the insurance paid, and any uninsured losses.

The making of a complete fire report, especially on large fires, frequently involves more time than the officer in charge can devote to it at the time of the fire. In the larger fire departments, investigators from fire headquarters may respond to large fires and also make follow-up visits following a fire. In smaller departments the chief may delegate the departmental secretary or some other member to complete the fire report.

Because of the difficulties involved in arriving quickly at an accurate loss figure that will be fair to all interested parties, there is much to be said in favor of a practice on the part of the fire department in refusing to make public an estimate of loss on a dollar basis at the time of the fire. For example, the fire department might privately estimate the loss at $2,500 or $5,000 while the property owner may estimate his loss at $10,000. Property owners tend to estimate their losses at the highest possible figure to protect their own interests in making a settlement. It is important to remember that at the time of the fire conditions may be unfavorable for an accurate determination of fire damage. This is particularly true of night fires. Unsightly conditions which generally accompany fire damage may make it impossible for the fire officer to take account of possible salvage values which may reduce the loss. A good method of making public preliminary loss estimates, therefore, is for the fire department to describe a loss in general terms such as "none," "small," "moderate," "considerable," or "large."

As soon as possible after the fire a detailed report should be made out showing an inventory of the damage done at the fire. This should be sufficiently detailed so that the fire department can establish the exact condition of the property when the fire department left the scene. Such information is likely to be very valuable at a later date. It also helps the fire department compare its estimates with those of the insurance adjusters. In the case of large fires it may be desirable to make plans and drawings showing the location and circumstances of the fire. Such plans might be supplemented with photographs. This information would be particularly valuable in arson cases when data must be produced in court, and also in other cases where the amount of loss may be in dispute.

After the fire department has made its loss estimate this should be checked against the damages allowed by the insurance adjuster. Overgenerous settlements by adjusters may tend to encourage fires and thus add to the total fire loss record of the community. For example, a fire in a shed may result in damage estimated by the fire department at only $10, but the owner may claim and secure payment of several hundred dollars' damages on the reasoning that it is just as easy to collect that amount as a smaller one. The adjuster in such a case may operate on the theory that a satisfied customer is more important to the insurance company than the cost of contesting a small claim. Such practices tend to work against the fire prevention efforts of the city in urging people to be careful and avoid fires.

WITH the cooperation of the fire insurance agents of the community the fire department can secure figures showing the amount of insurance payments on each fire. This cooperation has been secured by some fire departments through the practice of inviting the agents to use the fire record files at fire department headquarters. Access to well-kept fire department records informs the agents whether prospective customers have had a good or a bad fire record in the past.

To give the local agents a convenient means for reporting fire loss adjustments to the fire department, Insurance Agent's or Adjuster's Report (Form 15), has been included in the Model Records and Recording System for Fire Departments published by Public Administration Service, 1313 East 60th Street, Chicago, Ill. This and other record forms included in the model records system are available at nominal cost.

After the fire department gets the final adjusted loss figure on any fire it should compare the amount with its own initial estimate. This will help the department officers improve their skill at estimating losses. If the adjusted loss figure appears to be materially out of line the reasons should be determined and discussed. One cause for discrepancy between fire department loss estimates and the insurance loss figures may be found in salvage values. It is rather common practice

FIRE DEPARTMENT

INSURANCE AGENT'S OR ADJUSTER'S REPORT

Date of fire _____ 19__

Location (street and number) _____

Building (describe) _____

Owner _____

Occupant _____

How occupied _____

Building: Estimated Value _____ Ins. Carried _____ Ins. Paid _____

Contents: Estimated Value _____ Ins. Carried _____ Ins. Paid _____

Remarks _____

Please return to Fire Headquarters as soon as loss is paid

_____
Insurance Agent or Adjuster

Local insurance agents and adjusters are usually glad to cooperate with the fire department in furnishing figures of fire loss settlements for the department's records. It is helpful if the fire department has a form available on which local insurance men can supply these figures. Form 15 illustrated is from the Model Records and Reporting System and is available from Public Administration Service, 1313 East 60th Street, Chicago. Gathered into duplicate sets, 50 to a book, the cost is $1.50 per 100.

for insurance interests to buy out a fire damaged mercantile stock and have a salvage company dispose of the stock, frequently in another community. Unless the fire department is persistent in following up losses it may never know that a considerable amount of salvage was obtained thus reducing the actual fire damage paid to the insured and recorded by the department.

Fire department loss estimates ordinarily do not include use and occupancy and rental losses. These are usually regarded as indirect losses and are seldom calculated except where they may be insured. Where a part of the loss paid is for use and occupancy loss, or to cover loss of rents, the adjusted insurance loss may be larger than the fire department's estimate covering only the physical fire damage.

Considerable correspondence may be necessary to obtain loss figures on a fire in a chain store because this type of property is often insured by so-called "blanket" policies frequently placed in a distant city where the headquarters of the chain is located.

When the final fire loss figures for a building fire are available they should be tabulated on the individual fire report covering the fire concerned. Form No. 8, as described in the Model Records and Reporting System for Fire Departments, and entitled Report of Fire in a Building, provides a convenient means for recording all fire loss data for each fire. The section of this report form having to do with fire loss records is reproduced with this article.

Fire loss figures for each month should be transferred to a Consolidated Monthly Report (Form 26 of the Model System) providing for regular tabulation of loss figures. The use of the Consolidated Monthly Report brings loss figures together in proper form and simplifies the work of preparation for the annual report of the fire department.

LOSS DATA

Owner of building where fire started _____

Address _____

(If there was a loss on more than one building use a separate blank for reporting the loss to each building and to the occupants of each)

	Valuations	Damage Estimate at time of fire	Insurance Carried	Insurance Paid	Estimated Uninsured Loss
LOSS ON BUILDING WHERE FIRE STARTED					

CONTENTS LOSSES TO OCCUPANTS (List all occupants where loss occurred, and put star by the one where fire started.)

Floor	Name of Occupant	How Occupied					

RECAPITULATION OF LOSS	Building	Contents	Total
Valuations			
Damage estimate at time of fire			
Insurance carried			
Insurance paid			
Estimated uninsured loss			
Total loss (insured and uninsured)			

Fire loss figures for a building fire should be tabulated on the individual report for the fire. Above is illustrated the portion of Form 8, Report of Fire in a Building as suggested in the Model Records and Reporting System for Fire Departments, designed to aid recapitulation of loss data for a fire. The complete form is one of those available from Public Administration Service, 1313 East 60th Street, Chicago. It is furnished in pads of 50 copies at a cost of $2.50 per 100 forms.

FIRE department officers who are called upon to estimate fire losses should have a good idea of the value of various types of buildings and their contents. In cases where the property is not insured or where it is impossible to secure a copy of the insurance loss adjuster's report, the estimate made at the time of the fire by the officer in charge may be the only reliable loss data.

In a volunteer fire department there are likely to be building tradesmen, real estate men and others who can give assistance in making a reasonable estimate of the loss. Appraisal of loss should be based upon an inventory and survey of the premises. Records in the building department and assessors' offices should be checked as an aid in estimating the value of the building.

The general condition of the neighborhood in which a fire occurs may affect property values and should be considered when estimating a particular loss. A blighted run-down area may have reduced the value of a property which in a more desirable neighborhood might have twice its actual value. The investigator when estimating a fire loss should observe materials and workmanship of the building.

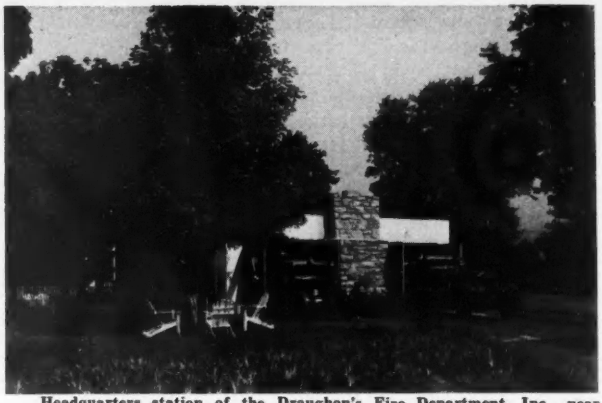
Since most building fire losses involve repair work rather than complete replacement, fire department officials need to know something of local construction cost items such as plastering, electrical wiring, carpentry, painting and paperhanging. Two identical fires in different localities might easily result in a loss 25 per cent greater in one community than in the other depending upon the cost of labor and materials in the two cities.

The original cost of a building is not the major factor in determining the fire loss because building costs have fluctuated considerably in recent years. At the present time it is widely recognized that building costs are going up due to the defense emergency. A building erected during a period of low construction costs and burned during a period of high costs might mean an actual loss greater than the original cost of the building. On the other hand, a building built during a high cost period and burned during a period of low cost might cause an actual loss far below its initial cost, particularly if it happens to be located in a blighted low rent area.

In estimating contents losses, the value of stocks which have been burned should be checked against available inventories. The damage from smoke, water, and rust must also be determined. A report of the N.F.P.A. Committee on Salvaging Operations (Salvaging Operations, 28 pages, 25 cents), describes the susceptibility to damage of various kinds of merchandise and the possibilities of salvage following exposure to water or smoke. The officer in charge at a fire cannot make a complete inventory of every item of stock damaged but he should make a detailed investigation if it appears that the damaged merchandise does not approximate the claimed inventory. In the case of important fires or unusual losses the fire chief should not hesitate to have an outside appraiser make an estimate of damages to specialized equipment or stock.

A FIRE DEPARTMENT RUN AS A BUSINESS

THE STORY OF DRAUGHON'S FIRE DEPARTMENT INCORPORATED



Headquarters station of the Draughon's Fire Department, Inc., near Nashville, Tennessee. View shows the No. 3 pumper and the emergency truck in front of the attractive bungalow station.

POSSIBLY one of the most unique fire departments in the United States is Draughon's Fire Department, Inc. (Member N.F.P.A.) protecting exclusive residential suburbs of Nashville, Tennessee. This department is unique in several ways. First, because it operates as a business corporation supported on a subscription basis through which it sells fire protection to the property owners and residents of the communities it protects. Second, it is doing a remarkably fine fire prevention job in educating its clients in the fire prevention measures which they can take to eliminate fire hazards. Third, each piece of fire apparatus in service in the three stations of the department is especially tailored to fit the needs of suburban areas where hydrant supplies are not always readily available. Each pumper carries its own water supply and in addition is equipped to utilize any existing water supplies near a fire.

The guiding hand of Draughon's Fire Department, Inc., is Chief J. V. Draughon, a hospitable Southern gentleman, much devoted to the increasing efficiency of his department. In 1927 when residing at the town of Brainerd, a suburb of Chattanooga, Tennessee, he tackled the job of organizing a paid fire company for that community which previously had been without fire protection. Subsequently, upon request of residents he operated another fire company at Druid Hills near Atlanta, Georgia. With the subsequent growth of the cities mentioned, Chief Draughon's companies were eventually absorbed into the fire departments of Chattanooga and Atlanta. Chief Draughon refused an appointment as an officer in the Chattanooga Fire Department in order to continue his own fire protection service. In 1929 he returned to his home city of Nashville, and opened his first fire station in the suburbs of that city. Two additional stations have been provided since to meet the demands of suburban residents for fire protection.

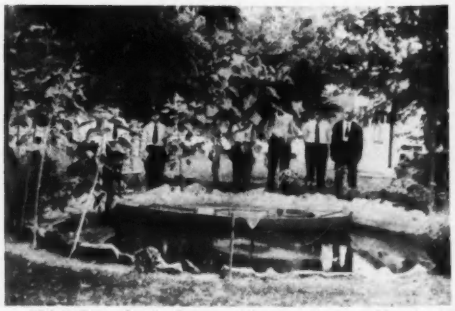
AT the present time the department consists of 21 full paid firemen including Chief Draughon, an assistant chief, three captains, three lieutenants and thirteen firemen. The men have a day off each week and in addition members may leave the station at any time by notifying the relief man who is available for this purpose. Each station has an officer on duty. The young men making up the department give an instant impression of a courteous, well disciplined force.

The Draughon Fire Department solicits business from an area within 2½ miles of each of its three fire stations. A regular solicitor contacts property owners who pay an annual fee for fire protection just as the residents of most communities pay taxes for their fire department services. The only difference is that taxes are assessed against all property owners whether they want protection or not, whereas in this case fire protection service is not compulsory. Needless to say most owners appreciate the opportunity to subscribe to the fire protection service. The department gives free protection to schools and churches within its territory and also to widows. Grass and auto fires are also fought without regard to compensation. Such small fires are handled by a speedy emergency truck with a 100-gallon booster tank. The department also has a portable pump that can be used at woods fires inaccessible to regular apparatus.

Chief Draughon's men have acquired a considerable reputation locally as fire fighters. They are proud of their ability at preventing needless water damage through the use of small lines used at close range. They also make good use of salvage covers. Perhaps typical is the following remark reportedly made by an insurance adjuster investigating

Apparatus and crew of No. 4 fire station. This new pumper carries a 1,000-gallon tank of water and a substantial amount of 1½-inch hose as well as 2½-inch hose. The 1½-inch line is kept connected to the tank for instant operation.

Chief J. V. Draughon, organizer and commanding officer of Draughon's Fire Department, Inc.



Chief Draughon's firemen like to serve at No. 3 station. There is a small pond on the grounds, a chicken house containing some 200 fowl, several barbeque pits and a large fireplace.

a fire in their territory. "This job must have been done by Draughon's boys. There was absolutely no water damage." There have been several instances where serious roof and attic fires have been extinguished with little or no damage on the floor below.

The department is also very proud of the fact that although protecting suburban areas where hydrants frequently are not available, it has never run short of water while fighting a fire. Each pumper of the department is equipped with a water tank carrying from 400 to 1,000 gallons. Although 2½-inch hose is provided, most inside fire fighting is done with 1½-inch hose and booster lines. The water tanks on each piece of apparatus can keep such lines supplied for some minutes during which time additional equipment is called as needed.

Where hydrants are available, 2½-inch lines are used to keep the water tanks filled. Where they are not available, special intake connections permit pumpers to utilize garden hose supplies. In numerous instances water has been drawn from the domestic system of the building on fire.

Chief Draughon believes in preventing fires if possible rather than in fighting them. Every member of the department is required to make ten inspections a month at the premises of various subscribers including dwellings. In this manner several hundred inspections are made monthly. Each visit is a courtesy call and good-will builder. No fire prevention rules are enforced but the firemen seek to point out to the householder hazards which may cause fires, and to suggest remedies. At each home some piece of fire prevention literature is left for the owner's consideration. Thus the subscriber appreciates the fact that he is getting year round protection designed first to prevent fires and secondly to extinguish them.

All alarms are taken over dual telephone receivers to eliminate any possibility of error due to misunderstanding. One of the men then notifies the companies assigned to respond while the other takes from the file at the watch desk a card covering the property of the subscriber reporting the fire. The card indicates the exact route the apparatus is to follow, what water supplies are available and other pertinent information.

Before the Draughon's Fire Department was organized the suburbs that it protects had to wait for apparatus to come out from Nashville in the event of a fire. In addition, Nashville taxpayers had reduced protection while the apparatus was out of quarters.

$1,000,000 Fire Stops Defense Production at Blasdell, New York

For some time the editors of VOLUNTEER FIREMEN have pointed out the importance of having members of each volunteer fire company familiar with the fire protection problems of industrial plants located in their home communities which are producing goods vital to national defense. A case in point is a million dollar fire which destroyed the plant of Exolon Co. Inc., at Blasdell, New York, on August 18, 1941. Information reaching the N.F.P.A. on this fire is reviewed below.

THE Exolon Company, Inc., of Blasdell, New York, near Buffalo, was an abrasive finishing plant. Until destroyed by fire on the evening of August 18, the plant was producing abrasive products vital to national defense.

Plant buildings were mostly of frame construction, steel clad, one to four stories in height. Floors and roof were of open joist. Stairs and other floor openings were open and unprotected against the spread of fire.

The plant was protected against fire by a dry pipe sprinkler system. However, the sprinkler system took its water supply from the small mains of the village water system. This water system at best could supply only 600 to 800 gallons per minute. This was obviously not enough water to protect such an important plant. With a flow of only 400 gallons a minute, pressure in the system dropped from a normal static pressure of 90 pounds to only 37 pounds. At the time of the fire foundations were being constructed for a 50,000 gallon water tank at the plant in order to supply sprinklers. If this supply had been available this large loss should have been prevented.

About 7:50 P. M. on the night of the fire an employee on the third floor detected smoke. Investigation located a small fire in a hollow partition between the first and second floors. It is believed that ignition was due to heat from an oil-fired roaster about four feet from the partition.

Sprinklers were not operating when the fire was discovered but came on a minute or so later on both the first and second floors. For about fifteen minutes the sprinklers held the fire in check but they could not extinguish the flames in the hollow partition and the continued heat of the fire opened several more sprinklers further away, wasting part of the limited water supply.

About this time the Blasdell Volunteer Fire Department took a stream from a private hydrant using a 1⅛-inch nozzle. This stream was weak and only served to reduce the flow from the sprinklers. A few minutes later the department's pumper and supplied a 1-inch nozzle inside the building until driven out by fire and smoke.

At 8:09 P. M. the plant manager called the Lackawanna city fire department, which sent a pumper and aerial ladder. This pumper also took suction from a private hydrant on the same weak water system which was supplying the sprinklers. A 1¼-inch nozzle used from the aerial ladder proved ineffective and a 1-inch nozzle was then used elsewhere.

At 8:23 P. M. the manager called the Buffalo Fire Department. The captain of the first Buffalo pumper to arrive immediately called more help. He then did what the first fire companies should have done had they appreciated the fact that the limited water supply was entirely needed to supply the sprinklers. He started relaying water from the point where the village water system gets its supply from 16- and 24-inch mains. The first Buffalo pumper was supplied through 1,000 feet of hose by the pumper of the Bigtree Volunteer Department and was able to do effective work. Two additional Buffalo pumpers formed a second relay which gave a good stream through a 1-inch nozzle. With this help the firemen made a stand and saved the company office and several other buildings.

This defense plant at Blasdell, New York, was wiped out by fire. Production of important war materials was reduced to less than five per cent of what the plant was turning out before the fire. Several months will pass before the plant can be replaced and production resumed. It is reported that the Office of Production Management in Washington is struggling with the problem of providing some relief to customers depending on the burned plant for essential abrasive products. The automatic sprinklers protecting the plant failed largely because fire department pumpers took all of the available water.

International

SPONTANEOUS IGNITION

The pictures illustrating this article are reproduced by courtesy of WATCH magazine published by the American Mutual Liability Insurance Company.

THEORY AND PRACTICE

Ranking high as a major fire cause, mysterious spontaneous ignition (popularly called "spontaneous combustion"), causes nearly 20,000 fires and a loss of above $15,000,000 in the United States each year according to estimates of the N.F.P.A. Department of Fire Record.

If rags or waste soaked with oils are left lying about in a heap so that there is not sufficient circulation of air to keep them cool, heat resulting from slow oxidation of the oils (or their combination with oxygen) may accumulate until the material reaches its ignition temperature and takes fire. This is one example of spontaneous ignition.

In these pictures we first observe an experiment in which oil soaked cotton waste is ignited spontaneously. Then we are shown how the thoughtless disposition of an oily cloth may cause spontaneous ignition in the home and how it may be prevented. Linseed oil and similar oils used in paints and furniture polishes are particularly subject to spontaneous heating. Mineral oils seldom heat spontaneously.

Cotton waste saturated with oil is placed in a glass container to start experiment in spontaneous ignition.

One hour later the cotton mass has started smouldering due to slow oxidation.

Three hours later the smouldering waste has burst into flame.

In the home spontaneous ignition may originate from such a simple household task as polishing the furniture if the polishing cloths are not safely disposed of.

Oily rags, a major cause of spontaneous ignition in the home, should never be carelessly thrown aside as this housewife is doing.

It is good practice to promptly dispose of all oily rags. If you must save oily rags, they should be stored in a tightly covered metal container.

STATE ACTIVITIES

ALABAMA. The plan of measured fire service training developed at Oklahoma A. & M. College has been adopted as the official pattern for the Alabama firemen's training program. Alabama is thus the 9th state to adopt the same uniform training procedure. Units 1, 2, 3 and 4 are being given this year and it is planned to add units 5, 6 and 7 in 1942.

On the 13th of this month W. Fred Heisler of Oklahoma A. & M. College is to give a 30-hour teacher training course to Alabama fire department instructors who will then inaugurate zone schools throughout the state.

The 5th annual state fire college held at the University of Alabama in June had an attendance of 67 firemen from 29 cities and towns in Alabama. Several out of state fire departments were also represented. Last winter, Battalion Chief W. M. Walton of Birmingham, on a four months' leave of absence, conducted an itinerant department training program for the State Department of Education. Sixty-nine classes were held in twelve cities.

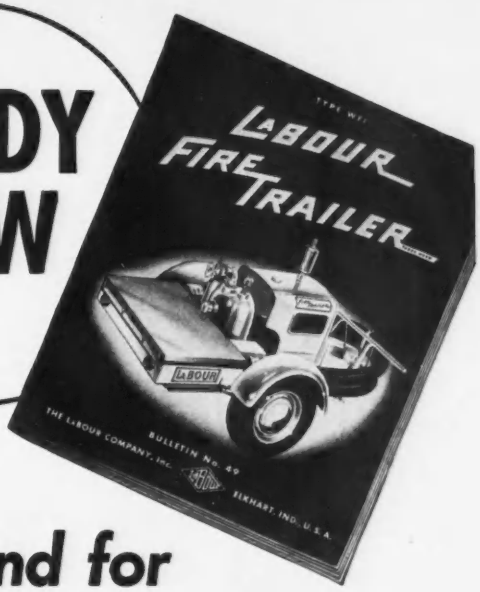
DELAWARE. A. J. Kavanaugh, Director of Public Safety in Wilmington, is defense director in charge of both fire and police activities for the state. Two instructors have been assigned to carry out special defense training classes throughout the state.

MAINE. Fifty-eight firemen from thirteen departments attended the firemen's training school held at Presque Isle, August 5-7.

MICHIGAN. The first annual fire college to be held by the University of Michigan (and the thirteenth in the history of the State) brought 168 firemen from 64 departments to Ann Arbor for four days in July. Cooperating in the program were the State Firemen's Association, the Michigan Fire Chiefs' Association, State Fire Marshal Arnold Renner, and the Michigan Inspection Bureau.

NEW MEXICO. Chief Carl A. Ehrich, State Fire Department Instructor, reports that all but two fire departments in his state are participating in the firemen's training program this year. In addition to the training of regular volunteer firemen, a large number of auxiliary firemen and members of the state guard were given an introductory firemen's training course. A state-wide blackout on the night of September 12th was so successful that Army bombers failed to locate several of the towns which they were seeking.

READY NOW



Send for Your Free Copy

Packed With Trailer Pumper Facts

If you are considering the purchase of auxiliary fire equipment, or if you are responsible for fire protection facilities in outlying communities or under a defense program, you should read this bulletin. Besides illustrating and describing the LaBour Fire Trailer, Bulletin 49 outlines the conditions under which trailer pumpers are most useful and the considerations involved in their selection. A page is devoted to suggestions about water supply, including a table of dimensions for fire cisterns.

The LaBour Fire Trailer is truly emergency apparatus. Without previous preparation it can be quickly attached to any passenger car. When necessary, one man alone can operate and do an effective fire fighting job with it. Dirty water cannot harm the pump.

Send for your copy of Bulletin 49 at once. There's no charge or obligation.

THE LABOUR COMPANY, INC.
Elkhart, Indiana, U. S. A.

LABOUR FIRE TRAILER TRADE MARK

N.F.P.A. Membership

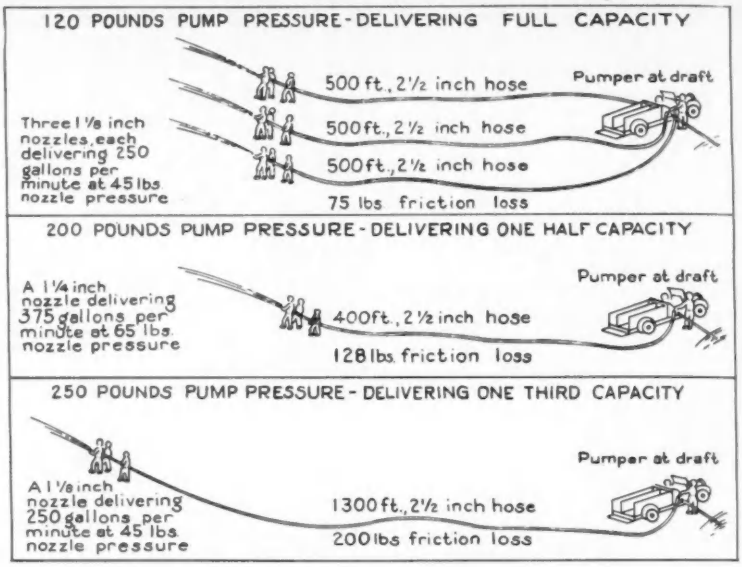
Every member receives this handsome membership certificate.

Membership with unusual advantages is available to fire companies and fire departments through the Volunteer Firemen's Section of the National Fire Protection Association. Here's the simple plan:

INDIVIDUAL membership in the National Fire Protection Association costs $10 per year. The membership plan for the Volunteer Firemen's Section is designed to give each fire company the advantages of N.F.P.A. membership. The fire company, as a member, receives at its headquarters a complete set of all regular N.F.P.A. literature, including the *Quarterly* magazine, as issued. In addition, as a special service to the Volunteer Firemen's Section, each fire company holding N.F.P.A. membership is entitled to have copies of the magazine VOLUNTEER FIREMEN sent to the home addresses of 10 firemen each month. If more than 10 firemen want to receive the magazine, an additional $1.00 should be sent in with the membership fee for each fireman in excess of 10 enrolled.

Because of the large amount of material mailed to members, not less than $10 can be accepted from any company.

What Work Will a 750-Gallon Pumper Do?


120 POUNDS PUMP PRESSURE - DELIVERING FULL CAPACITY
Three 1⅛ inch nozzles, each delivering 250 gallons per minute at 45 lbs. nozzle pressure
500 ft., 2½ inch hose
500 ft., 2½ inch hose
500 ft., 2½ inch hose
Pumper at draft
75 lbs. friction loss
200 POUNDS PUMP PRESSURE - DELIVERING ONE HALF CAPACITY
A 1¼ inch nozzle delivering 375 gallons per minute at 65 lbs. nozzle pressure
400 ft., 2½ inch hose
Pumper at draft
128 lbs. friction loss
250 POUNDS PUMP PRESSURE - DELIVERING ONE THIRD CAPACITY
A 1⅛ inch nozzle delivering 250 gallons per minute at 45 lbs. nozzle pressure
1300 ft., 2½ inch hose
Pumper at draft
200 lbs friction loss

IN past issues of VOLUNTEER FIREMEN we have outlined the work that 500-gallon and 600-gallon pumpers can do. The next larger standard size of fire department pumper is one that will turn out 750-gallons of water a minute when operating at rated capacity. It is this size of pumping unit that does most of the work in built-up areas and provides the pumper service in most of the engine companies of an average city fire department.

When operating at capacity the 750-gallon pumper is a formidable fire fighting machine capable of supplying three 1⅛-inch nozzles at 45-pounds nozzle pressure. These nozzles may be supplied through 2½-inch lines up to 500-feet long when operating at approximately the same elevation as the pumper. It is also possible when operating a 750-gallon pumper at capacity to supply two 1¼-inch nozzles through short lines.

When a standard 750-gallon pumper is operated at 200-pounds pump pressure it is expected to deliver only one-half of its rated capacity or 375-gallons per minute. Thus when working at high pressures, the 750-gallon pumper (like the smaller pumpers previously discussed) becomes a one-line engine. A single 1¼-inch nozzle can deliver 375-gallons per minute at 65 pounds nozzle pressure. It is possible for the 750-gallon pumper to supply this stream through 400-feet of 2½-inch hose provided there is no material loss of pressure due to elevation of the nozzle above the pump.

Failure to appreciate the limited capacity of a 750-gallon pumper when operating at high pressures has frequently resulted in faulty performance at large fires. It is not uncommon to have a fire department attempt to supply two or three long lines at high pressures or at high elevations, with the result that none of the lines are satisfactory. Such practices may subject the pumper to an unreasonable overload. Because of this type of experience some fire departments have ruled that no pump operator shall permit more than two lines to be supplied from a 750-gallon pumper. While this may prevent some cases of overload it must be remembered that at high pressures one good stream may be all that can be supplied. Of course, by using very small nozzle openings two lines can be supplied at high pressures but frequently high pressures are used in conjunction with heavy streams at large fires.

When operating at 250-pounds pressure the total discharge of a standard 750-gallon pumper is reduced to only 250-gallons per minute or one-third of its rated capacity. This equals the flow of a single 1⅛-inch nozzle operating at 45-pounds pressure.

The standard 750-gallon pumper has three discharge connections but obviously all of these cannot be supplied when the pump is supplying a hose layout requiring high pressures. One veteran pumper operator when working at a layout calling for high pressure makes a practice of connecting a spare length of hose to the idle discharge connections and throwing the butt of the hose under the apparatus as an indication that no additional lines can be supplied by his machine.

The discharge characteristics of 750-gallon pumpers as described above apply to pumpers operating from draft.

Picture Magazine Features America's Fire Defense Problem

LOOK magazine, issue of October 7th, now on the newsstands, contains a three page pictorial article entitled "Fire, Hitler's Strongest Weapon —America's Fiercest Saboteur." This striking story (co-authored by Eliot Ness, Safety Director of Cleveland, Ohio, and Jo Chamberlin, newspaper man and magazine writer), puts the finger on the fire protection problem facing every community in the United States and Canada today. It outlines six steps that each community should take to strengthen its own fire defense. It further points out that while England's fires are set mainly by bombing, ours are set by our own carelessness.

Employees Fight Texas Fire Before Calling Firemen

A DELAYED alarm of 28 minutes is indicated by events surrounding a two alarm fire which recently destroyed a coach shed of the Texas and Pacific Railroad at El Paso, Texas. The city fire department received the alarm at 8:28 P. M. according to the time stamp at headquarters but one woman testified that she saw the fire as early as 8:00 P. M. By the time the firemen were called the blaze was of such magnitude that Assistant Chief Boone answering the first alarm sent in a second alarm by radio from his car while en-route. Initial efforts of the fire department were devoted to protecting exposed property which was already afire when they arrived.

Subsequent investigation disclosed that the private fire department, which included the entire night shift at the car repair shop. had been fighting the fire with two private hose streams. Included in the shop personnel was a former city fireman who testified that the fire could not possibly have been reported as soon as discovered because he had fought the fire a considerable time before the fire department arrived. He indicated that he assumed that someone else had reported the fire and made no effort to do so himself.

Pumper Available

THE Borough of Glenolden, Pennsylvania, has just acquired two new pumpers and wishes to sell its former pumper. The machine for sale is a 500-gallon Hahn pumper with 90 horse power Continental motor built in 1927. Equipped with a Northern rotary pump the apparatus is said to be in good condition, ready for immediate use and is fully equipped with tools and appliances. Persons interested should apply to Secretary of Council, Glenolden, Pennsylvania.

THE TIME-PROVED ULTIMATE IN FIRE DEPARTMENT SERVICE!

M.S.A. 1-HOUR OXYGEN BREATHING APPARATUS

Safeguards and renders more efficient the fireman working in unbreathable air—by supplying oxygen for a full hour's breathing, even under exertion. Smoke, gases or fumes in heavy concentrations, with even complete deficiency of oxygen, cannot harm wearers of this compact, sturdy, self-contained apparatus. Equipped with the famous M.S.A. All-Vision Facepiece, for maximum unobstructed vision—an essential feature in murky confined spaces. Write for details!

THE H-H INHALATOR

Leads in popularity throughout the world. Effectively aids in recovery of asphyxia and drowning victims, in conjunction with artificial respiration, by providing life-giving oxygen-carbon dioxide mixture according to demand of patient's lungs—naturally and gently. Approved by Association of Police and Fire Surgeons, and American Gas Association; accepted by American Medical Association. Bulletin No. CA-9.

MINE SAFETY APPLIANCES CO.
Braddock, Thomas and Meade Sts., Pittsburgh, Pa.
District Representatives in Principal Cities

FYR-FYTER
INSTANT
Saves Human Life

When Mr. and Mrs. Ladd, while returning to their farm home with a new auto, ran off a culvert and overturned, killing Mr. Ladd and pinning Mrs. Ladd under the car which was rapidly being consumed by flames—a neighbor of the Ladds, Mr. A. O. Barrett, came to the rescue with his 1¾-gallon Instant and the flames "died instantly." According to the last report from Dealer Frank Tilton of Washington C. H., Ohio, "I am glad to report that hopes are held for Mrs. Ladd's recovery."

SALESMEN WANTED

If you are interested in adding to your income by spare time work or in building a permanent business for yourself without investment in stock, fixtures, etc., write for our new Dealer's Plan to

THE FYR-FYTER COMPANY
Dept. 20-70 DAYTON, O.

AUTOCAR
FIRE APPARATUS

Custom-building to meet local requirements is our Specialty. Let us bid to your exact specifications the next time you are asking for a Proposal, or write now for literature and photographs.

THE AUTOCAR COMPANY
BOX VF, ARDMORE, PA.

110° BELOW ZERO
FIRE OUT IN SECONDS

ROARING MACHINES . . . Bang Bang of hammers . . . Screech of cutting tools . . . Splash of parts in lacquer dip-tanks . . . Foremen moving here and there. And in every movement you see industry at work. The orderly routing of planned production. Suddenly a burst of flame. Fire crews rush to stations. The long wait for the siren and the bell. The long wait mopping up afterwards. But why the necessity of all this waiting?

IT'S SAFER *because* IT'S FASTER

C-O-TWO will smother a fire in a matter of seconds with carbon dioxide gas expelled from the nozzle at a temperature of 110 degrees below zero—without damage. No mopping up after fire axes and water deluge. Progressive factories know the reliability of C-O-TWO. It means avoiding costly delays and shutdowns caused by fires. There is C-O-TWO* equipment to protect every plant against fire. Write today for full details on portables, hose units and systems.

C-O-TWO Wheeled Portable

U. S. Navy type, two 20 lb. cylinders arranged for separate release of carbon dioxide from either cylinder—25 ft. length of hose.

C-O-TWO
FIRE EQUIPMENT CO.

10 EMPIRE STREET, NEWARK, N. J.

Sales and Service in the Principal Cities of United States and Canada

C-O-TWO

**C-O-TWO is the registered trade mark and trade name of the carbon dioxide fire extinguishing equipment manufactured by the C-O-TWO Fire Equipment Company, Newark, New Jersey.*

$10.00-$3.00-$2.00 EACH MONTH

PYRENE PRIZE LETTER CONTEST

THIS is a contest for firemen. Any fireman, whether a private or a chief, whether volunteer or paid, has the same chance to win in this easy contest designed to show what can be done with approved fire extinguishers. You have probably been present at numerous fires where approved fire extinguishers have been successfully used. It's the story we want, not letter writing ability. Get the facts down on paper and we will attend to any rewriting necessary to get the story into the space available in these columns.

The contest is sponsored cooperatively by the Pyrene Manufacturing Company of Newark, N. J., and VOLUNTEER FIREMEN to bring forth the lessons learned from actual fires of the value of fire extinguishers.

FIRST PRIZE—$10.00

R. W. MCLAUGHLIN, *Chief*
United Fire Company,
Montrose, Pa.

Set Pumper Ablaze!

Yesterday we responded to a large barn fire one mile from the Borough limits at 3:55 P.M. Engine No. 2 was pumping from a lake through a 1,000-ft. layout. At 5:30 P.M. I decided to move this engine and went down to the lake to order the operators to shut down. It had been necessary to replenish the gas supply and a can with about 2½ gallons left in it was nearby. The fuel pump on the pumper had been giving a little trouble and one of our mechanics thinking there was water in the can threw the gasoline on the hot motor intending to cool the fuel pump. There was an instant explosion setting the motor and right side of the truck on fire. I was standing on the left side and grabbed a 2½-gallon foam extinguisher and handed it to this fireman. I played another 2½-gallon foam unit on the fire and under the front end of the pumper which was in the lake. The assistant chief at the fire saw our troubles and sent Engine No. 3 to our help. With their 2½-gallon foam and 2½-gallon soda-acid extinguishers we put the fire out. The only damage was scorched paint and a scorched ladder on the right side and the battery was broken. We put in a new battery and continued to pump for two hours more. Thanks to the extinguishers we still have our truck and were saved from an embarrassing situation.

SECOND PRIZE—$3.00

GEORGE SWEETING, *Secretary*
Fire Department,
Calgary, Alberta

Where There's Smoke There's Fire

On a Sunday afternoon I was busy with some work in the basement of my home when my little daughter aged seven ran into the kitchen where her mother was cooking and told her that she could smell smoke like that of wood burning. My wife said, "Oh I guess it's Dad's old pipe he is smoking downstairs," consequently my daughter returned to her playthings in the living room. Presently she came running back to the top of the basement stairs and shouted, "Dad, the house is on fire. I can see the smoke." I rushed upstairs and, sure enough, she was right. Smoke was seeping through the woodwork of the fireplace. The fireplace was one with the smoke pipe leading directly into the chimney from the back of the radiant. I smashed a hole through the concrete behind the radiant and discovered a flame about nine inches long licking its way up a two by four beside the chimney flue. I applied half of the contents of a 1-quart carbon tetrachloride extinguisher and the fire was killed almost instantly.

THIRD PRIZE—$2.00

LAMBERT B. TIBBS
Fire Department,
Pekin, Illinois

Old Extinguisher Proved Useful

Shortly before leaving on my vacation we were cleaning one of the storage rooms in the fire station. I found a 1-quart carbon tetrachloride extinguisher which seemed to be in an obsolete condition. I started to throw it away but on second thought placed it aside. Later in the day I cleaned it and got it in working order. The fire chief gave me permission to fill it and take it with me so I placed it in my car. Two days later when we arrived at the cabin where we were to spend our vacation I placed it inside the cabin. The next morning I was awakened by a shout from one of my buddies. He had lighted the kerosene stove and had gone outside. Upon returning he found the stove and one side of the cabin wall afire. I leaped from my cot and grabbing the once discarded extinguisher quickly extinguished the fire averting a ruined vacation.

CONTEST RULES

1. Contestants in the Pyrene Prize Letter Contest must be members of their local fire department.

2. Letters are to describe actual experiences where an approved fire extinguisher of any make has saved lives or property.

3. Trade names may be used but will be deleted in publication. Publishers reserve the right to edit winning letters to permit publication.

4. Each contestant automatically vouches for the truth of the facts presented from his own or others' experience.

5. Only one letter may be submitted each month.

6. Letters must be legibly written in ink or typewritten on white paper, one side only. Preference will be given to letters not over 250 words in length.

7. Letters received after the 8th day of the month will be judged in following month's competition.

8. Monthly prizes in cash will be: 1st, $10.00; 2nd, $3.00; and 3rd, $2.00.

9. Address contest letters to Pyrene Prize Letter Contest, National Fire Protection Association, 60 Batterymarch St., Boston, Mass.

FEDERAL VERTICAL SIRENS

are known for

- DEPENDABILITY
- HIGH QUALITY
- ADEQUATE POWER

made in capacities from 1 to 7½ hp.

Federal Electric Co., Inc.

"Siren Headquarters"

8717 S. State St. Chicago, Ill.

SPECIAL EQUIPMENT FOR FIRE DEPARTMENTS

NATIONAL

SF-21

FOAM GENERATOR

for running board mounting

Capacity—

1100 gallons of foam per minute

Write for details to:

NATIONAL FOAM SYSTEM

INCORPORATED

1633 Sansom St., Philadelphia, Penna.

NEW TEXTS

THE FIRE FIGHTERS OF LONDON IN ACTION. This interesting little book published by the Garden City Publishing Co., Inc., Garden City, New York, was written and illustrated by members of the London Fire Brigade. The book tells the story of the great fires caused by incendiary bombs, which occurred in London last winter. It describes how they were fought. It also tells of lessons learned from the experiences of last winter.

The book, consisting of 50 pages plus 19 illustrations, sells for 25 cents a copy. Half of the publishing profits are pledged by the publishers to the London Fire Brigade Benevolent Fund.

The illustrations, which are reproduced in black and white, are selected from a larger collection consisting of 107 paintings and drawings done by members of the London Fire Service.

* * * * *

THE INTERNATIONAL ASSOCIATION OF ELECTRICAL INSPECTORS, 612 North Michigan Avenue, Chicago, has recently issued a 24 page pamphlet entitled, The National Electrical Code, A Description of its Purpose and the Manner in Which it is Formulated. The pamphlet also contains the official procedure of the N.F.P.A. Electrical Committee which is charged with the preparation and revision of the National Electrical Code; the procedure to be followed in obtaining official interpretations of the code; interim amendment procedure, procedure for introduction of new materials; and brief description of Underwriters' Laboratories Inc. which has tested more than 150,000 electrical products.

* * * * *

ON THE SAFE SIDE, Program 14, a 12 page illustrated educational bulletin published by Underwriters' Laboratories, Inc., 207 East Ohio Street, Chicago, reports an educational radio broadcast made by Station WCFL, Chicago. The subject of the broadcast was the assistance given by Underwriters' Laboratories, Inc., in the conduct of a four year course in fire protection engineering given by Armour Institute of Technology at Chicago.

* * * * *

THE AMERICAN LEGION, Indianapolis, Indiana, has recently issued Manual No. 4—Series for Civilian Defense. The pocket-sized manual covers air raid precaution services including: control centers, first aid, rescue parties, fire and police aid, and demolition and repairs.

Tackle SMALL FIRES THIS WAY!

WITH CLEAR WATER

Indian Fire Pumps

Tests Prove INDIANS One of Best Means for Incendiary Bomb Control!

IN addition to their outstanding advantages for fighting building, grass and forest fires, INDIANS are highly effective in controlling incendiary bombs. The No. 147 Adjustable Nozzle throws a stream of fine, long distance mist spray which burns the bomb out quickly and restricts damage. One man can operate—where three are needed for the bucket stirrup pump. Tests at Edgewood Arsenal and other bomb demonstrations show INDIANS to be excellently adapted to this work. Be sure you have plenty of these efficient all 'round extinguishers—send for INDIAN FIRE PUMP catalog. Remember clear water ONLY is used.

D. B. SMITH & CO.

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THE DIAPHONE

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